92-03341/

agri-fax Alberta AGRICULTURE

Agdex 121/33-8
February 1990

Varietal Description of Impact Alfalfa

Origin and breeding

Impact alfalfa, tested as NAPB 26A, was developed by Nickerson American Plant Breeders Inc., Shawnee Mission, Kansas. Impact is a 73 clone synthetic variety; the 73 selected clones were selected from over 76,000 spaced planted from 1127 initial clones. The initial clones were evaluated for hay vigor, dark green leaf color, resistance to leafhopper yellowing, winter survival, spring vigor, fall dormancy, and freedom from common and lepto leafspot and downy mildew. The resulting parental populations were subjected to 2 - 4 cycles of recurrent phenotypic selection for resistance to bacterial wilt, fusarium wilt, phytophthora root rot, anthracnose and verticillium wilt. Final clonal selections were made in 1981. Parental germplasm traces, in order of contribution, to Endure, Apollo II, Apollo, Anchor, WL 318, Atlas and Olympic.

Varietal characteristics

Plant characteristics

Growth habit: erect in summer; prostrate in fall
Flower color: 72% light to dark purple, 27% variegated and 1% or less yellow and cream
Flowering date: intermediate
Leaves: darker green than Barrier; size similar to Barrier
Stems: no pubescence
Pods: 100% tightly coiled
Fall dormancy: intermediate between Saranac and Iroquois
Plant height: similar to Barrier
Disease reaction: highly resistant to bacterial wilt *(Corynebacterium insidiosum)* and moderately resistant to verticillium wilt *(Verticillium albo-atrum)* and phytophthora root rot *(Phytophthora megasperma)*

Performance

Six station years of British Columbia data have indicated that Impact has shown superior forage yields to Barrier in B.C. trials. Impact also showed superior forage yield to Beaver at Lethbridge and Kamloops and superior yield to Peace at Kersley.

Maintenance of breeder seed: Nickerson American Plant Breeders, Inc., Shawnee Mission, Kansas

Canadian Distributor: United Grain Growers Ltd.

Recommended by: British Columbia Cultivar Evaluation Committee on Forage Crops

Table 1. Forage Yield (kg D.M./ha) of Impact and Check Varieties, Uniform Alfalfa Trials* Seeded 1986

Location	Year Tested	Beaver	Barrier	Peace	Impact
Lethbridge	1987	14037	14796	13467	14525
(irrigated)	1988	12172	12115	11003	13020
Kamloops	1987	12953	12892	--	14756
(irrigated)	1988	13346	13769	--	15093
Kersley	1987	9359	8911	8150	8758
	1988	8011	7618	7384	8554
Mean		11646	11684	--	12451

* only data used by B.C.C.E.C.F.C. to make decision is presented here.

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